

PREFACE

The purpose of the Chesapeake Bay Preservation Act is to protect and improve the water quality of the Chesapeake Bay, its tributaries and other state waters by minimizing the impacts of human activity on the waters and within locally designated Chesapeake Bay Preservation Areas. **The intent of this Manual is to provide guidance and clarification for Tidewater local governments, at their request, regarding the section of the Regulations describing buffer exemptions and modifications.** These guidelines are intended to aid local governments in helping a property owner use and enjoy his property while avoiding activities in conflict with the intent of the Bay Act and the program's Regulations.

The program's regulations require that a 100-foot wide buffer area be designated as the landward component of the Resource Protection Area (RPA). The Act defines RPA as "... that component of the Chesapeake Bay Preservation Area comprised of lands adjacent to water bodies with perennial flow that have an intrinsic water quality value due to the ecological and biological processes they perform or are sensitive to impacts which may result in significant degradation to the quality of state waters." As part of the RPA, the Regulations require that "...a 100-foot wide buffer area of vegetation that is effective in retarding runoff, preventing erosion, and filtering non-point source pollution from runoff shall be retained if present and established where it does not exist."

The number of scientific studies and guidance manuals documenting the many values of riparian forest buffers would fill many bookshelves. In the Bay Act program, the RPA buffer area is viewed as the last line of defense against pollution, transported in overland runoff, reaching the Bay and its tributaries. In light of the abundant scientific evidence that woody vegetation is of significant value for accomplishing these goals, the Regulations were crafted to protect existing woody vegetation. The values and functions of the buffer for achieving these goals are discussed in *Chapter 2* of this manual and serve as a guide to clarifying the purpose of the buffer and the reasons for retaining as much woody vegetation as possible, subject to the allowed exemptions and modifications discussed herein.

Generally, the intent of the Regulations is as follows:

- Protect existing wooded buffers, while allowing certain modifications to the extent that they do not diminish the ability of the buffer to perform its water quality functions.
- Where no vegetation exists in a buffer, or the existing vegetation is insufficient to accomplish the three functions of retarding runoff, preventing erosion and filtering non-point pollution, effective vegetation must be established and woody buffer plantings are encouraged.
- Where a property had a lawn prior to the adoption of the local Bay Act program, no additional planting is required, although the addition of woody vegetation is encouraged for the benefits they would provide.

Scientists consider the multi-tiered buffer (with mature canopy trees, understory trees and shrubs and groundcover) to constitute the ideal buffer that will accomplish the maximum buffer functions. Therefore that model is presented in this Manual as the goal. However, the Board and Department staff acknowledge that meeting this model may not always be achievable.

While the entire 100-foot wide buffer is required to accomplish the buffer requirements, scientific studies have noted that, on first, second and third-order streams (headwater streams and those less than approximately sixty feet wide), the twenty-five feet closest to the stream provide functions critical to the stream health that are in addition to the benefits the remainder provides.¹ The ability of this portion of the buffer to moderate water temperature, provide bank stabilization and supply organic debris for aquatic organisms makes it especially sensitive to potentially harmful activity such as chemical use, or excessive removal of vegetation and ground floor debris. Because of this sensitivity, owners should try to avoid activity in these areas, leaving them undisturbed to the degree feasible.

The process established by the local government for approval of buffer modifications should include a water quality impact assessment (WQIA) for any disturbance in accordance with § 9 VAC 10-20-130.1.a. This would not apply to exempted activities. However shoreline erosion control, access paths that involve construction activity or woodlot management activity, such as removal of large amounts of invasives resulting in land disturbance, would require a WQIA.

Each chapter is intended to stand alone and may, therefore, contain information that has been presented in prior chapters. Included in these chapters and appendices are suggestions and recommendations, based on scientific studies, and the most current guidance available in the literature about on how to achieve the goals of the Chesapeake Bay Preservation Act while permitting reasonable modifications and activities that do not diminish the functions of the buffer: retarding runoff, preventing erosion and filtering non-point pollution. Ultimately, each local government will have to determine how to best address oversight of buffer exemptions and modifications and the decisions associated with them.

¹ Lowrance, Richard, et al. (August 1995, Reprint 1998). *Water Quality Functions of Riparian Forest Buffer Systems in the Chesapeake Bay Watershed*. pp 5-17.